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ABSTRACT

Although increasing use of paraprofessionals to implement key program concepts has the advantage of increased availability and lower salaries, problems in maintaining acceptable levels of performance have also been reported. This study assessed the role of performance-related feedback on the work behavior of paraprofessional tutors in a remedial reading program. One randomly chosen tutor received publicly posted feedback each day on (1) degree of completeness with which one student's answers to comprehension-check questions were tutored; (2) accuracy with which that student's data sheet had been computed; and (3) time at which the first student's tutorial session had begun. The simple feedback package produced significant improvement in the measured level of the first two work-related behaviors, but not in the third. It was concluded that simple informational feedback and the objective measures of work performance on which it is based may be of considerable practical importance to supervisors in insuring satisfactory work performance by paraprofessionals in applied programs. (Author)

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[illegible]

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Abstract

[illegible] of paraprofessionals to implement many program components [illegible], despite such apparent advantages as enhanced self-fulfillment and lower salaries, problems in maintaining acceptable levels of on-the-job performance in these roles have [illegible] been reported. This study assessed the role of performance-related feedback on the work behavior of paraprofessional aides in a remedial reading program. One randomly chosen aide received publicly-posted feedback each day on 1) the degree of completeness with which the students' answers to comprehension-check questions were recorded; 2) the [illegible] time at which each student's data sheet had been completed; [illegible] the time at which the first students' tutorial session had begun. The simple feedback package produced significant improvement in the measured level of the first two work-related behaviors, but not in the third, and subsequent increases in the number of outcome performances to correct feedback produced no additional improvement in this behavior. It was concluded that simple informational feedback (and the objective nature of work performance on which it is based) may be of considerable practical importance to supervisors in insuring acceptable work performance by paraprofessionals in applied programs.

Summary

[illegible] the current [illegible] technology of applied [illegible] [illegible], eight recently large numbers of [illegible] [illegible] have been invested [illegible] the [illegible] environment (Miller, Buschman and Haber, 1967). [illegible] occurrence [illegible], [illegible] increasing frequency [illegible] applied [illegible] [illegible] the use of paraprofessional personnel to [illegible] [illegible] [illegible] of applied programs (Guralnick, [illegible], 1973; [illegible], 1974). Despite [illegible] [illegible] [illegible] [illegible], and lesser salaries, [illegible] [illegible] [illegible] on-the-job performance with paraprofessionals have been reported (Jones, [illegible]).

Performance-training has proved [illegible] [illegible], [illegible] for programs employing paraprofessionals to assess the [illegible] of intervention techniques that are actually used [illegible]. [illegible] some form of assurance that the procedures have been [illegible] carried out, the investigator who obtains less than [illegible] experimental results, may erroneously attribute such outcomes only to the nature of the intervention package employed.

Given such problems, what controlling variables do applied supervisors have at their disposal to either prevent or minimize performance decrements in workers? One potential source of performance control is the variable known as feedback, or knowledge of results on performance. Simple information [illegible] which has been used by investigators to enhance performance in simulated work settings (Gibbs & Brown, 1975); actual [illegible]

[illegible] (1[illegible], 1[illegible]); [illegible] (1[illegible], [illegible], 1[illegible]); [illegible] (1[illegible], 1[illegible], [illegible], [illegible], [illegible], 1[illegible]).

The research study investigated the effects of providing parent-mediated feedback on three work behaviors in a sample of paraprofessional teaching workers.

Footnote

[illegible]

Subject and Setting

[illegible] psychiatric reading [illegible] method [illegible] of [illegible] middle women (ages [illegible] and [illegible]), one had completed [illegible] years and the other had obtained her [illegible] high school diploma. These subjects worked a maximum of [illegible] per week for an hourly salary of $[illegible]. These individuals were high school students employed through the Neighborhood Youth Corps. They were employed 40 hours per week [illegible] salary of $1.60 per hour.

A [illegible] reading program was [illegible] in the school [illegible] the reading tutors have small rooms for tutoring, with [illegible] tables, chairs, point-counters, [illegible] [illegible], [illegible] and [illegible]. Students were tutored on a one-to-one basis for 30 minutes each week-day after school. While students read stories aloud, and answered questions over the [illegible], tutors reinforced their performance, differential [illegible] and subtracting points (Christopherson, [illegible] [illegible], 1971), which could be exchanged for money at the [illegible] time.

Three dependent classes of tutor behavior were studied. They were 1) completeness of tutoring, 2) accuracy of [illegible] subtractions, and 3) the time tutoring was [illegible] each [illegible].

I Complete Tutoring

For complete tutoring, tutors had been trained to give their verbal praise statements following each correct response.

[illegible]

[illegible]

Recording of complete tutor behaviors was used which [illegible] a standardized test sheet, recording each of the response components question by question, in an occurrence vs. non-occurrence fashion.

These data were combined, and expressed as a single percent complete tutor measure. This measure was obtained by dividing the number of completely successful answers, both correct and incorrect, by the total number of answers given per session.

Interobserver reliability of this response [illegible] was periodically assessed by having two independent observers analyze a single audio tape of a tutorial session. In addition, infrequent naive observer assessments were made by five select visitors sent of written instructions along with the

[illegible]

[illegible]

[illegible] ability of occurrence [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible] [illegible] [illegible] [

[illegible] the effectiveness [illegible] during each of these [illegible] each [illegible] in terms of complete tutor; all [illegible] for scoring of evaluations, [illegible] were recorded. Feedback on performance [illegible] individual [illegible] tutors daily [illegible].

Feedback: Complete Tutor

A [illegible] of 11 [illegible] a period of [illegible] for complete tutoring. [illegible] were [illegible] by [illegible] the need for objective performance measures by which tutors could be [illegible] for [illegible]. The decision to select the complete tutor [illegible] these measures [illegible].

Subject definitions of, and instructions for complete tutoring were provided, as was a supplemental [illegible] presented the most frequently encountered question types, and the appropriate models of complete tutor behavior for each.

Daily performance was made public each day by means of a feedback board, centrally displayed in the reading lab. [illegible] "Score board" showed the randomly chosen tutor's name, his [illegible] performance scores for each of the complete tutor components, and in addition contained a spot on which the project director's daily signature appeared. Tutor performance scores were also placed in the tutor's personal employee folder.

[illegible] : [illegible]

[illegible] [illegible] [illegible] [

[illegible] on the display board. In this condition, [illegible] received a daily feedback sheet which listed [illegible] completed, and whether or not each was marked [illegible] errors. The sheet also listed the [illegible] whether he was judged to be [illegible]. The daily sheets were signed by parents, returned to the [illegible] and placed in the personal [illegible] folders.

RESULTS

Reliability

Regular observers checked the reliability of the [illegible] measure on 15 sessions resulting in a mean percent agreement of [illegible]. [illegible] observer agreed [illegible] reliability of the accuracy of completion measure [illegible] assessed on 25 occasions with agreement between checkers averaging 97 percent. Mean agreement between [illegible] and regular checkers was 99 percent. Independent observer records of [illegible] sessions were compared for the time [illegible] data [illegible] percent agreement between checkers averaging 95.

Insert Figure 4 about here

Figure 4 summarizes the mean performance of all five [illegible] on each of the three dependent measures over [illegible] school days. Due to the relative stability of the observed condition trends, sessions [illegible] through [illegible] inclusive, have been uniformly deleted from the graphic summarization of the data. Analysis of the condition means shows that the mean percent with which students' answers were completed

[illegible]

[illegible] the underlying feedback condition.

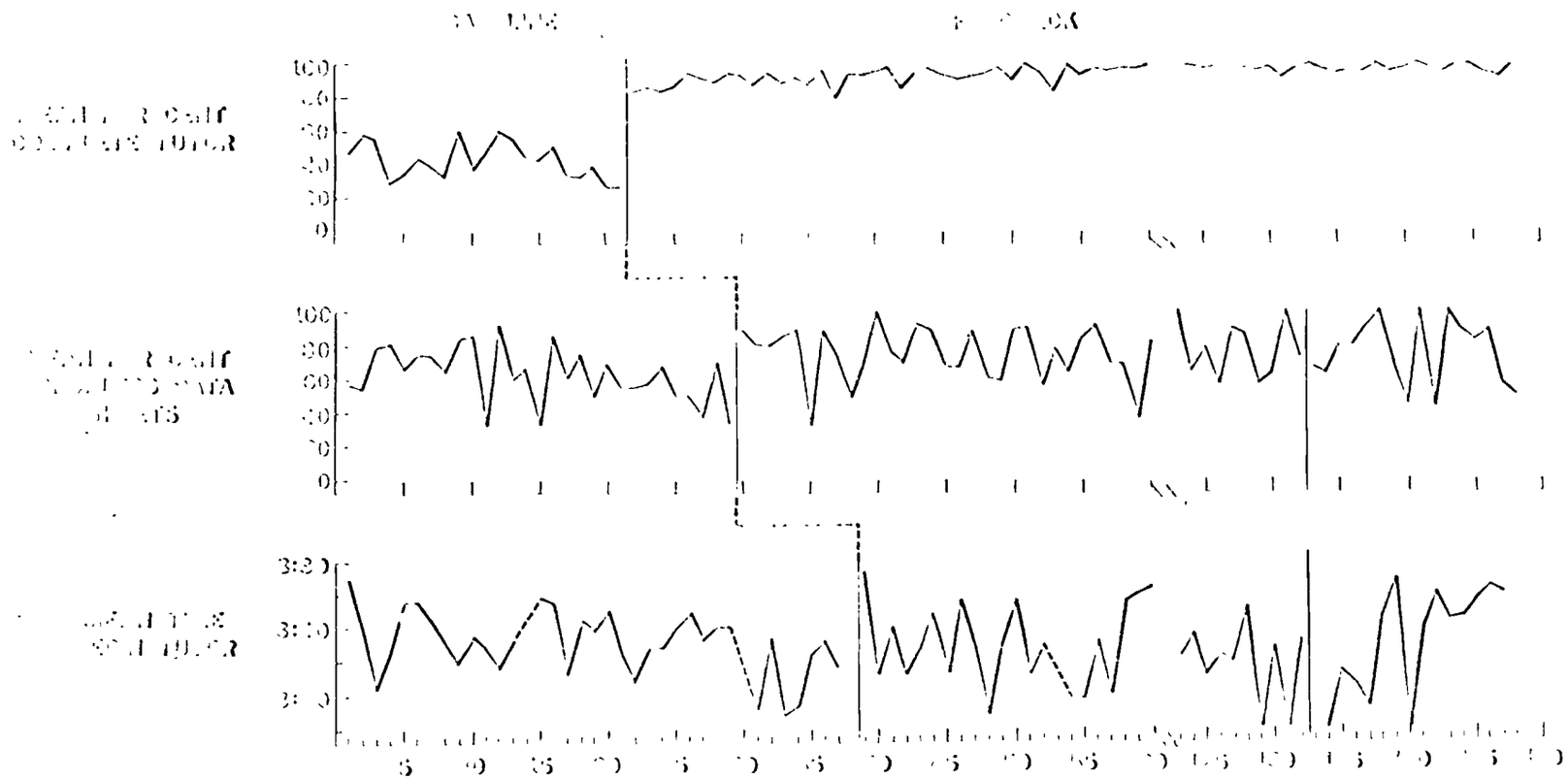
Signal detection analyses

[illegible] t-tests were performed to assess the probability that the observed differences in condition means could [illegible] chance variation. Dependent variables included [illegible] correct responses (hits and [illegible]). These [illegible] t-tests compared the mean [illegible] of the eight days of feedback for each variable. Both [illegible] t-tests showed the condition mean differences to be significant at the .001 level for variable one; significant at the .01 level for variable two; and significant at the .05 level for variable three. Two additional t-tests compared the mean [illegible] of the first 10 days of baseline for variables one and two, [illegible] served as controls for simultaneous changes in [illegible] variables one and two [illegible] the introduction of feedback. Neither of these t-tests were found to be significant.

Supplementary feedback

Inspection of the data from subject [illegible] indicates the [illegible] effects of introducing additional feedback to [illegible] one and three. The mean percent of correct [illegible] rose from [illegible] to [illegible], and a [illegible] increase in [illegible] time began to occur variable three [illegible] to [illegible].

Figure 4. A record of [illegible] tutor performance (ordinate) over successive days (abscissa), [illegible] completion, [illegible] percent [illegible] data [illegible], and [illegible]. Vertical lines indicate offset of baseline and onset of feedback conditions. Broken lines connecting data points represent estimates of performance levels on days when actual data points were unavailable. Vertical hash marks on abscissa indicate that data are available, but omitted from the graphic summarization.



ABSTRACT

[illegible]

[illegible] the demonstration of the occlusion of [illegible] observed behavioral changes. While [illegible] to short changes to the [illegible] flow, [illegible] would be [illegible], [illegible] components (anatomical [illegible] the [illegible], the [illegible] hair-cells, etc.). [illegible] would be due to the combination of [illegible] effects [illegible] positive changes in one of the [illegible] introduced. In addition, it was concluded that [illegible] required to provide [illegible] supplied [illegible] of a negligible [illegible], and thus the [illegible] [illegible] equilibrium [illegible] on [illegible] of [illegible].

[illegible] changes in performance [illegible] primarily to the effects of [illegible], [illegible] [illegible] of [illegible] [illegible] [illegible] (Silver [illegible], [illegible]; [illegible], 1971; Thompson, [illegible] 1974; [illegible] 1970; Jackson [illegible], [illegible]). [illegible]

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[illegible]

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